```
SSSSSSSS  YY    YY    SSSSSSSS  FFFFFFFFF    000000   RRRRRRR   CCCCCCC  EEEEEEEEEE  XX        XX
SSSSSSSS  YY    YY    SSSSSSSS  FFFFFFFFFF   000000   RRRRRRR   CCCCCCC  EEEEEEEEEE  XX        XX
SS        YY    YY    SS        FF          00    00  RR    RR  CC       EE              XX    XX
SS        YY    YY    SS        FF          00    00  RR    RR  CC       EE              XX    XX
SS          YY  YY    SS        FF          00    00  RR    RR  CC       EE                XX XX
SS          YY  YY    SS        FF          00    00  RR    RR  CC       EE                XX XX
  SSSSSS      YY        SSSSSS  FFFFFFF     00    00  RRRRRRR   CC       EEEEEEE             XX
  SSSSSS      YY        SSSSSS  FFFFFFF     00    00  RRRRRRR   CC       EEEEEEE             XX
      SS      YY            SS  FF          00    00  RR  RR    CC       EE                XX XX
      SS      YY            SS  FF          00    00  RR  RR    CC       EE                XX XX
      SS      YY            SS  FF          00    00  RR    RR  CC       EE              XX    XX
      SS      YY            SS  FF          00    00  RR    RR  CC       EE              XX    XX
SSSSSSSS      YY      SSSSSSSS  FF           000000   RR    RR  CCCCCCC  EEEEEEEEEE  XX        XX   ....
SSSSSSSS      YY      SSSSSSSS  FF           000000   RR    RR  CCCCCCC  EEEEEEEEEE  XX        XX   ....
                                                                                                  ....
                                                                                                  ....
```

```
LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II            SS
LL              II            SS
LL              II            SS
LL              II            SS
LLLLLLLLL     IIIIII      SSSSSSSS
LLLLLLLLL     IIIIII      SSSSSSSS
```

SYSFORCEX
V04-000

B 10

FORCE EXIT SYSTEM SERVICE

16-SEP-1984 02:07:50   VAX/VMS Macro V04-00   Page 1
5-SEP-1984 03:53:21   [SYS.SRC]SYSFORCEX.MAR;1   (1)

```
 1              .TITLE  SYSFORCEX FORCE EXIT SYSTEM SERVICE
 2              .IDENT  'V04-000'
 3
 4
 5  ;
 6  ;********************************************************************
 7  ;*                                                                  *
 8  ;* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                          *
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24  ;* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.           *
25  ;*                                                                  *
26  ;*                                                                  *
27  ;********************************************************************
28
29  ;++
30  ; FACILITY: EXECUTIVE, SYSTEM SERVICES
31  ;
32  ; ABSTRACT:
33  ;
34  ; ENVIRONMENT:
35  ;
36  ;--
37  ;
38  ;        .PAGE
39  ;        .SBTTL  HISTORY                    ; DETAILED
40  ;
41  ; AUTHOR:      R. HUSTVEDT      CREATION DATE: 1-OCT-76
42  ;
43  ; MODIFIED BY:
44  ;        ,_: VERSION
45  ; 01      -
46
```

C 10

SYSFORCEX   FORCE EXIT SYSTEM SERVICE   16-SEP-1984 02:07:50   VAX/VMS Macro V04-00   Page 2
V04-000   DECLARATIONS   5-SEP-1984 03:53:21   [SYS.SRC]SYSFORCEX.MAR;1   (1)

```
                        0000      48              .SBTTL  DECLARATIONS
                        0000      49
                        0000      50  ;
                        0000      51  ; INCLUDE FILES:
                        0000      52  ;
                        0000      53
                        0000      54              $ACBDEF                          ; DEFINE AST CONTROL BLOCK
                        0000      55              $IPLDEF                          ; DEFINE INTERRUPT PRIORITY LEVELS
                        0000      56              $PCBDEF                          ; DEFINE PROCESS CONTROL BLOCK
                        0000      57              $PRDEF                           ; DEFINE PROCESSOR REGISTERS
                        0000      58              $PRIDEF                          ; DEFINE PRIORITY INCREMENT CLASSES
                        0000      59              $SSDEF                           ; DEFINE STATUS CODES
                        0000      60
                        0000      61  ;
                        0000      62  ; EQUATED SYMBOLS:
                        0000      63  ;
                        0000      64
            00000000    0000      65  ASTEXIT=0                                    ; CHMK CODE FOR ASTEXIT
            0000000C    0000      66  CODE=12                                      ; DISPLACEMENT TO CODE PARAMETER
                        0000      67  ;
                        0000      68  ; OWN STORAGE:
                        0000      69  ;
                        0000      70
```

SYSFORCEX
V04-000

D 10

FORCE EXIT SYSTEM SERVICE   16-SEP-1984 02:07:50   VAX/VMS Macro V04-00   Page 3
EXE$FORCEX - FORCE EXIT SYSTEM SERVICE   5-SEP-1984 03:53:21 [SYS.SRC]SYSFORCEX.MAR;1   (1)

```
                        0000      72              .SBTTL  EXE$FORCEX - FORCE EXIT SYSTEM SERVICE
                        0000      73
                        0000      74  ;++
                        0000      75  ; FUNCTIONAL DESCRIPTION:
                        0000      76  ;
                        0000      77  ; CALLING SEQUENCE:
                        0000      78  ;       CALLG   ARGLIST,EXE$FORCEX
                        0000      79  ;
                        0000      80  ; INPUT PARAMETERS:
                        0000      81  ;       PIDADR(AP) - ADDRESS OF PID (WRITTEN)
                        0000      82  ;       PRCNAM(AP) - ADDRESS OF PROCESS LOGICAL NAME
                        0000      83  ;       CODE(AP) - COMPLETION CODE TO BE USED FOR EXIT CALL
                        0000      84  ;       R4 - PCB ADDRESS OF CURRENT PROCESS
                        0000      85  ;
                        0000      86  ; IMPLICIT INPUTS:
                        0000      87  ;       NONE
                        0000      88  ;
                        0000      89  ; OUTPUT PARAMETERS:
                        0000      90  ;       @PIDADR(AP) - PID OF PROCESS FOR WHICH EXIT WAS FORCED
                        0000      91  ;       R0 - COMPLETION STATUS
                        0000      92  ;
                        0000      93  ; IMPLICIT OUTPUTS:
                        0000      94  ;       NONE
                        0000      95  ;
                        0000      96  ; COMPLETION CODES:
                        0000      97  ;       SS$_NORMAL  - SUCCESSFUL COMPLETION
                        0000      98  ;       SS$_INSFMEM - INSUFFICIENT DYNAMIC MEMORY
                        0000      99  ;       SS$_NONEXPR - NON-EXISTENT PROCESS
                        0000     100  ;       SS$_NOPRIV  - INSUFFICIENT PRIVILEGE TO CONTROL DETACHED PROCESS
                        0000     101  ;
                        0000     102  ; SIDE EFFECTS:
                        0000     103  ;       NONE
                        0000     104  ;
                        0000     105  ;--
                        0000     106
                        0000     107  EXE$FORCEX::                                 ; FORCE EXIT SYSTEM SERVICE
                 003C   0000     108          .WORD   ^M<R2,R3,R4,R5>             ; SAVE REGISTERS R2-R5
            FFFB'  30   0002     109          BSBW    EXE$NAMPID                  ; CONVERT NAME-PID PAIR
                        0005     110          SETIPL  #0                          ; DROP IPL
        2B 50   E9      0008     111          BLBC    R0,20$                      ; EXIT IF ERROR
   23 24 A4  02  E2     000B     112          BBSS    #PCB$V_FORCPEN,PCB$L_STS(R4),10$; FORCE EXIT ALREADY PENDING
            51   DD     0010     113          PUSHL   R1                          ; SAVE PID
            FFEB'  30   0012     114          BSBW    EXE$ALLOCIRP                ; ALLOCATE AST CONTROL BLOCK
        1E 50   E9      0015     115          BLBC    R0,20$                      ; EXIT IF ERROR
     0B A2  03  90      0018     116          MOVB    #3,ACB$B_RMOD(R2)           ; SET ACCESS MODE
     0C A2  8E  D0      001C     117          MOVL    (SP)+,ACB$L_PID(R2)         ; SET PID OF DESTINATION
  10 A2  37'AF  9E      0020     118          MOVAB   B^DOEXIT,ACB$L_AST(R2)      ; AND ADDRESS OF AST ROUTINE
  14 A2  0C AC  D0      0025     119          MOVL    CODE(AP),ACB$L_ASTPRM(R2)   ; SET CODE FOR EXIT CALL
        55  52  D0      002A     120          MOVL    R2,R5                       ; AST CONTROL BLOCK ADDRESS FOR QAST
        52  02  9A      002D     121          MOVZBL  #PRI$_RESAVL,R2             ; SET PRIORITY INCREMENT CLASS
            FFCD'  30   0030     122          BSBW    SCH$QAST                    ; QUEUE ACB FOR TARGET PROCESS
        50  01  3C      0033     123  10$:    MOVZWL  #SS$_NORMAL,R0              ; SET NORMAL COMPLETION STATUS
                04      0036     124  20$:    RET                                 ; AND RETURN TO CALLER
                        0037     125
                        0037     126
```

SYSFORCEX
V04-000

E 10

FORCE EXIT SYSTEM SERVICE   16-SEP-1984 02:07:50   VAX/VMS Macro V04-00   Page   4
EXE$FORCEX - FORCE EXIT SYSTEM SERVICE   5-SEP-1984 03:53:21   [SYS.SRC]SYSFORCEX.MAR;1   (1)

```
                    0037   128 ;
                    0037   129 ; PERFORM EXIT AS A RESULT OF USER MODE AST IN THE CONTEXT OF THE
                    0037   130 ; TARGET PROCESS.
                    0037   131 ;
                    0037   132
                    0037   133 DOEXIT:
         00 0000    0037   134         .WORD   0                   ; NULL REGISTER SAVE MASK
         00   BC    0039   135         CHMK    #ASTEXIT            ; CLEAR AST ACTIVE FLAG
              003B  136         $EXIT_S 4(AP)                      ; MAKE EXIT CALL
                    0045   137
                    0045   138
                    0045   139         .END
```

```
ACB$B_RMOD        = 0000000B
ACB$L_AST         = 00000010
ACB$L_ASTPRM      = 00000014
ACB$L_PID         = 0000000C
ASTEXIT           = 0000000C
CODE              = 0000000C
DOEXIT              00000037 R      01
EXE$ALLOCIRP       ********   X     01
EXE$FORCEX         00000000 RG      01
EXE$NAMPID         ********   X     01
PCB$L_STS         = 00000024
PCB$V_FORCPEN     = 00000002
PR$_IPL           = 00000012
PRI$_RESAVL       = 00000002
SCH$QAST           ********   X     01
SS$_NORMAL        = 00000001
SYS$EXIT           ********  GX     01
```

```
                        +------------------+
                        ! Psect synopsis !
                        +------------------+
```

```
PSECT name              Allocation        PSECT No.  Attributes
----------              ----------        ---------  ----------
.  ABS  .               00000000 (   0.)  00 (  0.)  NOPIC  USR  CON  ABS  LCL  NOSHR  NOEXE  NORD  NOWRT  NOVEC  BYTE
. BLANK .               00000045 (  69.)  01 (  1.)  NOPIC  USR  CON  REL  LCL  NOSHR  EXE    RD    WRT    NOVEC  BYTE
$ABS$                   00000000 (   0.)  02 (  2.)  NOPIC  USR  CON  ABS  LCL  NOSHR  EXE    RD    WRT    NOVEC  BYTE
```

```
                   +---------------------------+
                   ! Performance indicators !
                   +---------------------------+
```

```
Phase                   Page faults   CPU Time       Elapsed Time
-----                   -----------   --------       ------------
Initialization                   31   00:00:00.06    00:00:01.17
Command processing              109   00:00:00.58    00:00:06.28
Pass 1                          242   00:00:06.02    00:00:18.03
Symbol table sort                 0   00:00:01.05    00:00:04.28
Pass 2                           40   00:00:01.03    00:00:04.65
Symbol table output               4   00:00:00.03    00:00:00.04
Psect synopsis output             1   00:00:00.02    00:00:00.02
Cross-reference output            0   00:00:00.00    00:00:00.00
Assembler run totals            429   00:00:08.81    00:00:34.49
```

The working set limit was 1200 pages.
33261 bytes (65 pages) of virtual memory were used to buffer the intermediate code.
There were 40 pages of symbol table space allocated to hold 667 non-local and 2 local symbols.
139 source lines were read in Pass 1, producing 12 object records in Pass 2.
15 pages of virtual memory were used to define 14 macros.

```
                                    +-------------------------------+
                                    ! Macro library statistics !
                                    +-------------------------------+

Macro library name                       Macros defined
------------------                       --------------
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                  5
_$255$DUA28:[SYSLIB]STARLET.MLB;2               6
TOTALS (all libraries)                         11
```

753 GETS were required to define 11 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:SYSFORCEX/OBJ=OBJ$:SYSFORCEX MSRC$:SYSFORCEX/UPDATE=(ENH$:SYSFORCEX)+EXECML$/LIB

SYSGETJPI
LIS

SYSERAPAT
LIS

SYSFAO
LIS

SYSGETDVI
LIS

SYSEXIT
LIS

SYSEVTSRV
LIS

SYSFORCEX
LIS